

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An optical module, comprising:  
an optical subassembly including a semiconductor optical device;  
a substrate securing the optical subassembly and mounting a circuit for driving the semiconductor optical device, ~~the circuit generating heat;~~  
a metal base enclosing the optical subassembly, the base providing an opening with an inner surface sloping to the substrate, for exposing the circuit on the substrate being exposed within the opening;  
a metal cover;  
~~a thermal block made of metal for dissipating the heat generated by the circuit, the thermal block arranged so as to cover the opening of the base and being thermally in contact with the circuit and the cover; and~~  
a thermal block arranged in the metal base so as to plug the opening of the base to be in thermally contact with the circuit and the metal cover for conducting heat generated by the circuit, the thermal block having an outer surface with a shape fitting the inner surface of the opening; and  
a thermal sheet put between the thermal block and the circuit,  
wherein the thermal block is secured by pressing the outer surface thereon to the inner surface of the opening by the cover.
2. (Cancelled)
3. (Cancelled)

4. (Previously Presented) The optical module according to claim 1, wherein the thermal sheet is made of resin.

Claims 5-8. (Cancelled)

9. (New) The optical module according to claim 1, wherein the thermal block is made of one of aluminum, aluminum alloy, copper or copper alloy.

10. (New) The optical module according to claim 1, wherein the base is made of resin.

11. (New) The optical module according to claim 1, wherein the optical subassembly is a transmitting optical subassembly installing a laser diode therein.

12. (New) The optical module according to claim 1, wherein the opening provided in the base is formed nearly center of the base, and the thermal block plugged in the opening electrically partitions a space within the optical module by being in contact with the circuit on the substrate and the cover.